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EXAMINER	
BHATIA, AJAY M	

ART UNIT	PAPER NUMBER
2145	

DATE MAILED: 03/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/902,421	KOLLURI ET AL.	
	Examiner	Art Unit	
	Ajay M Bhatia	2145	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 July 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3, 4, 10, 11, and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Corey et al. (U.S. Patent 5,987,446, referred to as Corey).

3. For claim 1, Corey teaches, an inferred relation weighting process for determining the strength of an inferred relation between a first and a second Internet object, which are not directly linked, comprising:

a first link weighting process for determining the strength of at least a first link between said first non-directly linked Internet object and a common object; (see Corey, Col. 2 lines 11-46)

a second link weighting process for determining the strength of at least a second link between said second non-directly linked Internet object and said common object; and (see Corey, Col. 2 lines 11-46)

an inferred relation weight calculation process for calculating the strength of said inferred relation based on the strength of said at least a first link and said at least a second link. (see Corey, Col. 2 lines 11-46, Col. 3 line 15 to Col. 2 line 10)

4. For claim 3, Corey teaches, the inferred relation weighting process of claim 1 wherein said common object includes at least one Internet query. (see Corey, Col. 2 lines 11-46, Col. 9 lines 40-65)

5. For claim 4, Corey teaches, the inferred relation weighting process of claim 1 wherein said common object includes at least one Internet document. (see Corey, Col. 2 lines 11-46, Col. 9 lines 40-65)

6. For claim 10, Corey teaches, the inferred relation weighting process of claim 1 wherein at least one of said Internet objects is an Internet query. (see Corey, Col. 7 lines 34-67, Col. 9 lines 40-65)

7. For claim 11, Corey teaches, the inferred relation weighting process of claim 1 wherein at least one of said Internet objects is an Internet document. (see Corey, Col. 2 lines 11-46, Col. 9 lines 40-65)

8. For claim 26, Corey teaches, a method for determining the strength of an inferred relation between a first and a second Internet object, which are not directly linked, comprising:

determining the strength of at least a first link between the first non-directly linked Internet object and a common object; (see Corey, Col. 2 lines 11-46)

determining the strength of at least a second link between the second non-directly linked Internet object and the common object; and (see Corey, Col. 2 lines 11-46)

calculating the strength of the inferred relation based on the strength of the at least a first link and the at least a second link. (see Corey, Col. 2 lines 11-46, Col. 3 line 15 to Col. 2 line 10)

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 2, 6-8, 12, 14, 16-20, 22-24, 27, and 29-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corey in view of Brown et al. (U.S. Patent 5,875,446, referred to as Brown).

11. For claim 2, Corey fails to clear disclose, the inferred relation weighting process of claim 1 wherein said common object comprises a plurality of discrete Internet objects, each interconnected with a discrete link, and said plurality of discrete Internet objects and links connect said first and second links, wherein said inferred relation weighting process further comprises an intermediate link weighting process for determining the

strength of each said discrete link, wherein the strength of said inferred relation is based on the strength of each said discrete link and the strength of said at least a first link and said at least a second link.

Brown teaches, the inferred relation weighting process of claim 1 wherein said common object comprises a plurality of discrete Internet objects, each interconnected with a discrete link, and said plurality of discrete Internet objects and links connect said first and second links, wherein said inferred relation weighting process further comprises an intermediate link weighting process for determining the strength of each said discrete link, wherein the strength of said inferred relation is based on the strength of each said discrete link and the strength of said at least a first link and said at least a second link. (see Brown, Col. 8 lines 23-39, Col. 8 lines 45-57, Col. 9 lines 16-30, Col. 10 lines 16-32)

It would have been obvious to on of ordinary skill in the art at the time of the invention was made to combine the search weighting system of Corey with the intermediate search weighting method of Brown in order to provide users with additional objects that may be of similar interest. (see Brown, Col. 1 line 60 to Col. 2 line 11, Col. 2 line 56 to Col. 3 line 19) and (see Corey, Col.1 lines 10-38)

12. For claim 6, Corey-Brown teaches, the inferred relation weighting process of claim 2 further comprising an incoming link analysis process for determining the number

of objects linked to each of said plurality of Internet objects, wherein the incoming link value of each said Internet object is directly proportional to the number of objects linked to that Internet object. (see Brown, Col. 8 lines 23-39, Col. 8 lines 45-57, Col. 9 lines 16-30, Col. 10 lines 16-32)

The same motivation that was utilized in the rejection of claim 2 applies equally as well to claim 6.

13. For claim 7, Corey-Brown teaches, the inferred relation weighting process of claim 2 further comprising an outgoing link analysis process for determining the number of objects that each of said plurality of Internet objects is linked to, wherein the outgoing link value of each said Internet object is directly proportional to the number of objects that said Internet object is linked to. (see Brown, Col. 8 lines 23-39, Col. 8 lines 45-57, Col. 9 lines 16-30, Col. 10 lines 16-32)

The same motivation that was utilized in the rejection of claim 2 applies equally as well to claim 7.

14. For claim 8, Corey-Brown teaches, the inferred relation weighting process of claim 2 wherein said inferred relation weight calculation process includes a known relation recalculation process for redefining the values of the strength of each said discrete link and the strength of said at least a first link and said at least a second link in

response to the calculation of said strength of said inferred relation. (see Brown, Col. 8 lines 23-39, Col. 8 lines 45-57, Col. 9 lines 16-30, Col. 10 lines 16-32, Col. 10 lines 32-42)

The same motivation that was utilized in the rejection of claim 2 applies equally as well to claim 8.

15. For claim 12, Corey-Brown teaches, the inferred relation weighting process of claim 1 wherein said strength of said inferred relation is a relevance score. (see Brown, Col. 1 line 60 to Col. 2 line 11. Col. 15 lines 32-42)

The same motivation that was utilized in the rejection of claim 2 applies equally as well to claim 12.

16. For claim 14, Corey-Brown teaches, an inferred relation weighting process for determining the strength of an inferred relation between a first and a second Internet object, which are not directly linked, comprising:

a first link weighting process for determining the strength of at least a first link between said first non-directly linked Internet object and a plurality of common objects;

a second link weighting process for determining the strength of at least a second link between said second non-directly linked Internet object and said plurality of common objects;

wherein said plurality of common objects comprises a first common object connected to said first link;

a second common object connected to said second link, and an intermediate link interconnecting said first and second common objects;

an intermediate link weighting process for determining the strength of said intermediate link; and

an inferred relation weight calculation process for calculating the strength of said inferred relation based on the strength of said at least a first link, said at least a second link, and said intermediate link. (see Brown, Col. 8 lines 23-39, Col. 8 lines 45-57, Col. 9 lines 16-30, Col. 10 lines 16-32, Col. 10 lines 32-42) and . (see Corey, Col. 2 lines 11-46, Col. 3 line 15 to Col. 2 line 10)

The same motivation that was utilized in the rejection of claim 2 applies equally as well to claim 14.

17. Claims 16-20, 22-24, and 27 list all the same elements of claims 2, 6-8, 12, 14, but in system form rather than method form. Therefore, the supporting rationale of the rejection to claims 2, 6-8, 12, 14 applies equally as well to claim 16-20, 22-24, and 27.

18. For claim 29, Corey-Brown teaches, a computer program product residing on a computer readable medium having a plurality of instructions stored thereon which, when executed by the processor, cause that processor to:

determine the strength of at least a first link between the first non-directly linked Internet object and a common object;

determine the strength of at least a second link between the second non-directly linked Internet object and the common object; and

calculate the strength of the inferred relation based on the strength of the at least a first link and the at least a second link. . (see Brown, Col. 8 lines 23-39, Col. 8 lines 45-57, Col. 9 lines 16-30, Col. 10 lines 16-32, Col. 10 lines 32-42, Col. 2 line 65 to Col. 3 line 20, Col. 6 lines 12-25) and . (see Corey, Col. 2 lines 11-46, Col. 3 line 15 to Col. 2 line 10)

The same motivation that was utilized in the rejection of claim 2 applies equally as well to claim 29.

19. For claim 30, Corey-Brown teaches, the computer program product of claim 29 wherein said computer readable medium is a random access memory (RAM). (see Brown, Col. 2 line 65 to Col. 3 line 20, Col. 6 lines 12-25, RAM part of the computer)

The same motivation that was utilized in the rejection of claim 2 applies equally as well to claim 30.

20. For claim 31, Corey-Brown teaches, the computer program product of claim 29 wherein said computer readable medium is a read only memory (ROM). (see Brown, Col. 2 line 65 to Col. 3 line 20, Col. 6 lines 12-25, ROM part of the computer)

The same motivation that was utilized in the rejection of claim 2 applies equally as well to claim 31.

21. For claim 32, Corey-Brown teaches, the computer program product of claim 29 wherein said computer readable medium is a hard disk drive. (see Brown, Col. 2 line 65 to Col. 3 line 20, Col. 6 lines 12-25, hard disk drive part of the computer)

The same motivation that was utilized in the rejection of claim 2 applies equally as well to claim 32.

22. For claim 33, Corey-Brown teaches, a processor and memory configured to:

determine the strength of at least a first link between the first non-directly linked Internet object and a common object;

determine the strength of at least a second link between the second non-directly linked Internet object and the common object; and

calculate the strength of the inferred relation based on the strength of the at least a first link and the at least a second link. (see Brown, Col. 8 lines 23-39, Col. 8 lines 45-57, Col. 9 lines 16-30, Col. 10 lines 16-32, Col. 10 lines 32-42, Col. 2 line 65 to Col. 3

line 20, Col. 6 lines 12-25) and . (see Corey, Col. 2 lines 11-46, Col. 3 line 15 to Col. 2 line 10)

The same motivation that was utilized in the rejection of claim 2 applies equally as well to claim 33.

23. For claim 34, Corey-Brown teaches, the processor and memory of claim 33 wherein said processor and memory are incorporated into a personal computer. (see Brown, Col. 2 line 65 to Col. 3 line 20, Col. 6 lines 12-25, processor and memory are part of the computer)

The same motivation that was utilized in the rejection of claim 2 applies equally as well to claim 34.

24. For claim 35, Corey-Brown teaches, the processor and memory of claim 33 wherein said processor and memory are incorporated into a network server. (see Brown, Col. 2 line 65 to Col. 3 line 20, Col. 6 lines 12-25, processor and memory are part of the computer)

The same motivation that was utilized in the rejection of claim 2 applies equally as well to claim 35.

25. For claim 36, Corey-Brown teaches, the processor and memory of claim 33 wherein said processor and memory are incorporated into a single board computer. (see Brown, Col. 2 line 65 to Col. 3 line 20, Col. 6 lines 12-25, processor and memory are part of the computer)

The same motivation that was utilized in the rejection of claim 2 applies equally as well to claim 36.

26. Claims 5, 15, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corey-Brown as applied to claims 1-4, 6-8, 10-12, 14, 16-20, 22-24, 27, 29-36 above, and further in view of Schuetze et al. (U.S. Patent 6,751,612, referred to as Schuetze).

27. For claim 5, Corey-Brown fail to clear disclose, the inferred relation weighting process of claim 2 further comprising a link limitation process for specifying a link limit concerning the maximum number of links allowed to connect said first and second non-directly linked Internet objects.

Schuetze teaches, the inferred relation weighting process of claim 2 further comprising a link limitation process for specifying a link limit concerning the maximum number of links allowed to connect said first and second non-directly linked Internet objects. (see Schuetze, Col. 4 lines 57-62, Col. 5 line 63 to Col. 6line 21)

It would have been obvious to on of ordinary skill in the art at the time of the invention was made to combine the search weighting system of Corey-Brown with Schuetze method of a link limit concerning the maximum number of links in order to provide users with the most relevant information. (see Brown, Col. 1 line 60 to Col. 2 line 11, Col. 2 line 56 to Col. 3 line 19) and (see Corey, Col.1 lines 10-38) and (see Schuetze, Col. 1 line 45-62)

28. Claim 15 and 28 list all the same elements of claim 5, but in system form rather than method form. Therefore, the supporting rationale of the rejection to claim 5 applies equally as well to claim 15 and 28.

29. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Corey in view of Whitman et al. (U.S. Patent 6,7772,150, referred to as Whitman).

30. For claim 9, Corey fails to clearly disclose, the inferred relation weighting process of claim 1 wherein at least one of said Internet objects is a transaction record.

Whitman teaches, the inferred relation weighting process of claim 1 wherein at least one of said Internet objects is a transaction record. (see Whitman, Col. 4 lines 1-15, Col. 5 lines 44-64, and Col. 8 lines 12-35)

It would have been obvious to on of ordinary skill in the art at the time of the invention was made to combine the search weighting system of Corey with Whitman's method of weighting transaction records in order to provide users with a refined list of items and documents. (see Brown, Col. 1 line 60 to Col. 2 line 11, Col. 2 line 56 to Col. 3 line 19) and (see Corey, Col.1 lines 10-38) and (see Whitman, Col. 1 lines 45-62)

31. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Corey-Brown as applied to claims 1-4, 6-8, 10-12, 14, 16-20, 22-24, 27, 29-36 above, and further in view of Whitman.

32. For claim 21, Corey-Brown fails to clearly disclose, the inferred relation weighting process of claim 14 wherein at least one of said Internet objects is a transaction record.

Whitman teaches, the inferred relation weighting process of claim 14 wherein at least one of said Internet objects is a transaction record. (see Whitman, Col. 4 lines 1-15, Col. 5 lines 44-64, and Col. 8 lines 12-35)

It would have been obvious to on of ordinary skill in the art at the time of the invention was made to combine the search weighting system of Corey-Brown with Whitman's method of weighting transaction records in order to provide users with a refined list of items and documents. (see Brown, Col. 1 line 60 to Col. 2 line 11, Col. 2 line 56 to Col. 3 line 19) and (see Corey, Col.1 lines 10-38) and (see Whitman, Col. 1 lines 45-62)

33. Claims 13 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corey-Brown as applied to claims 1-4, 6-8, 10-12, 14, 16-20, 22-24, 27, 29-36 above, and further in view of Arthurs (U.S. Patent 6,591,261).

34. For claim 13, Corey-Brown fails to clearly disclose, the inferred relation weighting process of claim 9 wherein said relevance score is a percentage.

Arthurs teaches, the inferred relation weighting process of claim 9 wherein said relevance score is a percentage. (see Arthurs, Col. 5 lines 7-44)

It would have been obvious to on of ordinary skill in the art at the time of the invention was made to combine the search weighting system of Corey-Brown with Arthurs' method of presenting of search weighting in the form of a percentage in order to provide users with a refined list of object of interest. (see Brown, Col. 1 line 60 to Col. 2 line 11, Col. 2 line 56 to Col. 3 line 19) and (see Corey, Col.1 lines 10-38) and (see Arthurs, Col. 1 lines 37-57)

35. For claim 25, Corey-Brown-Arthurs teaches, the inferred relation weighting process of claim 24 wherein said relevance score is a percentage.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1. US-6,304,864 by Liddy et al.
2. US-5,999,929 by Goodman, Marc I.
3. US-6,112,202 by Kleinberg, Jon Michael
4. US-5,197,005 by Shwartz et al.
5. US-6,006,228 by Bowman et al.
6. US-6,36,848 by Aridor et al.
7. US-6,275,820 by Navin-Chandra et al.
8. US-6,853,993 by Ortega et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ajay M Bhatia whose telephone number is (571)-272-3906. The examiner can normally be reached on M-F 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Valencia M Wallace can be reached on (571)-272-6159. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AB

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